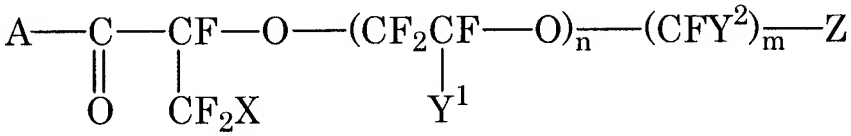
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

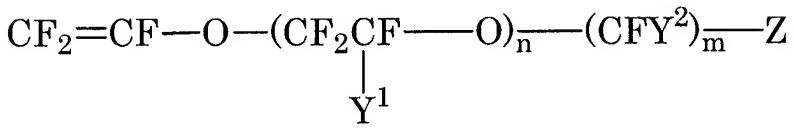
1. (currently amended): A method for producing a water-soluble fluorine-containing vinyl ether

which comprises subjecting a fluorine-containing 2-alkoxypropionic acid derivative represented by the following general formula (I):



(I)

(wherein A represents $-OM^1$ or $-OM^2_{1/2}$, and M^1 represents an alkali metal and M^2 represents an alkaline earth metal; X represents a halogen atom; Y^1 and Y^2 are the same or different and each represents a fluorine atom, a chlorine atom, a perfluoroalkyl group or a fluorochloroalkyl group; n represents an integer of 0 to 3, and n atoms/groups of Y^1 may be the same or different; m represents an integer of 1 to 5, and m atoms/groups of Y^2 may be the same or different; and Z represents a hydrophilic group) to thermal decomposition at a temperature of not lower than 50°C but lower than 170°C in the presence of a coordinating organic solvent comprising one or both of ethyl acetate and tetrahydrofuran to give a water-soluble fluorine-containing vinyl ether represented by the following general formula (II):



(I I)

(wherein Y^1, Y^2, Z, n and m are as defined above),

said coordinating organic solvent having a coordinating property with an ion of said M^1 or an ion of said M^2 and

said coordinating organic solvent being in an amount of 10 to 1,000 parts by mass per 100 parts by mass of said fluorine-containing 2-alkoxypropionic acid derivative.

2. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein the hydrophilic group is $-COOM^3$, $-OSO_3M^3$, $-SO_3M^3$, $-O_2PM^3$, $-OP(OM^3)_2$, $-O_2P(OM^3)$, $-OPO(OM^3)_2$, $-PO_2(OM^3)$, $-PO(OM^3)_2$, $-COOM^4{}_{1/2}$, $-OSO_3M^4{}_{1/2}$, $-SO_3M^4{}_{1/2}$, $-O_2PM^4{}_{1/2}$, $-OP(OM^4{}_{1/2})_2$, $-O_2P(OM^4{}_{1/2})$, $-OPO(OM^4{}_{1/2})_2$, $-PO_2(OM^4{}_{1/2})$, $-PO(OM^4{}_{1/2})_2$, or a substituted ammonio group forming a salt with a conjugate base of an inorganic acid or fatty acid (its substituents being two or three alkyl groups which are the same or different), wherein M^3 represents an alkali metal, a hydrogen atom or $NR^1R^2R^3R^4$ in which R^1, R^2, R^3 and R^4 are the same or different and each represents a hydrogen atom or an alkyl group containing 1 to 4 carbon atoms, and M^4 represents an alkaline earth metal.

3. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein the thermal decomposition is carried out at a temperature not lower than 50°C but lower than 150°C.

4. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein the coordinating organic solvent is in an amount of 30 to 300 parts by mass per 100 parts by mass of the fluorine-containing 2-alkoxypropionic acid derivative.

5. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein the coordinating organic solvent comprises an aprotic polar organic solvent.

6. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 5,

wherein the aprotic polar organic solvent is an ether solvent, sulfolane, hexamethylphosphoric triamide, acetonitrile, dimethylformamide, dimethyl sulfoxide, ethyl acetate and/or tetramethylurea.

7. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 6,

wherein the ether solvent is a glyme-based solvent, a diethyl ether, a diisopropyl ether, tetrahydrofuran, dioxane, anisole and/or a crown ether.

8. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 7,

wherein the glyme-based solvent is dimethoxyethane, diethoxyethane, monoethylene glycol dimethyl ether, diethylene glycol dimethyl ether, triethylene glycol dimethyl ether, tetraethylene glycol dimethyl ether, diethylene glycol monomethyl ether and/or diethylene glycol monoethyl ether.

9. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 5, wherein the aprotic polar organic solvent is a glyme-based solvent.

10. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 5,

wherein the aprotic polar organic solvent has a water content not exceeding 250 ppm.

11. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 5,

wherein the aprotic polar organic solvent is diethylene glycol dimethyl ether.

12. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 11,

wherein the diethylene glycol dimethyl ether has a water content not exceeding 250 ppm.

13. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein the fluorine-containing 2-alkoxypropionic acid derivative represented by the general formula (I) has a water content not exceeding 0.1% by mass.

14. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein n is 0 or 1.

15. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 2,

wherein Z is $-SO_3M^3$ or $-SO_3M^4{}_{1/2}$.

16. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 2,

wherein Z is $-SO_3M^3$, A is $-OM^1$ or $-OM^2_{1/2}$, Y^1 is a trifluoromethyl group, Y^2 is a fluorine atom and m is 2.

17. (original): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 16, wherein n is 0.

18. (previously presented): The method for producing a water-soluble fluorine-containing vinyl ether according to Claim 1,

wherein the coordinating organic solvent comprises at least one solvent with a boiling point not higher than a temperature of the thermal decomposition reaction.

19. (canceled.)